

Amendments to the Claims.

This listing of claims will replace all prior versions and listings of the claims in the application:

Listing of Claims:

1. (Currently Amended) A nanotextured biocompatible composite, comprising a biocompatible substrate and [, ] a mineral phase on said substrate comprising a calcium phosphate component, nanofibers of peptide amphiphiles, and poly(L-lysine), wherein said nanofibers are coupled to the poly(L-lysine) on such said substrate; and a nanotextured mineral phase on said calcium phosphate component, said mineral phase comprising calcium phosphate and poly(L-lysine).

(Original) The composite of claim 1 wherein the calcium content of said mineral phase is less than stoichiometric, and said poly(L-lysine) is incorporated within said calcium phosphate.

3. (Original) The composite of claim 1 wherein said mineral phase is reactive with at least one of an acid and degradative enzyme.

4. (Currently Amended) The composite of claim 1 wherein further comprising nanofibers of peptide amphiphiles coupled to said poly(L-lysine); at least one of said peptide amphiphiles comprises comprising a carboxy functionality.

5. (Currently Amended) The composite of claim 4 wherein at least one of said peptide amphiphiles comprises a an RGD sequence comprising arginine, glycine and aspartic acid.

6. (Original) The composite of claim 4 further comprising a mammalian preosteoblast cell culture.

7. (Original) The composite of claim 1 wherein said substrate comprises titanium.

8-20. (Cancelled).